REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-10 and 34 are pending in this application.

Claims 11-33 have been canceled based on Applicant's election from a restriction requirement.

Claims 4 and 34 have been amended.

Regarding the Claim Objection

Claim 4 was objected to because of an informality. Applicant has amended claim 4 to depend from claim 3 rather than claim 5. Applicant appreciates the Examiner's thorough review of the application and respectfully requests that the claim objection be withdrawn.

Regarding the § 102 Rejection

Claims 1, 2, 5-8 and 34 were rejected under 35 USC § 102(e) for being anticipated by Adam et al (U.S. Patent No. 6,628,725, hereinafter referred to as Adam). Applicant respectfully traverses the Examiner's rejection.

Applicant agrees with the Examiner that Adam teaches a scrambler for converting substantially original received data into scrambled data. In particular, Applicant agrees with the Examiner's note indicating that the Control Character Encoding and Byte Reordering Device 204, of Adam, is a device for converting character control data into binary data, hence the binary data from the Control Character Encoding and Byte Reordering Device 204 is

substantially original received data having no error correction redundancy bits added. Applicant respectfully directs the Examiner to Adam, col. 3, lines 29-50 and, in particular, starting at line 44. Adam states that at step 204, the 6 characters are encoded, which includes byte reordering and control character encoding or mapping. The control characters are mapped into 8-bit control words and the data characters are kept in byte form as 8-bit data words. As part of the encoding, all control words are moved to the beginning of the group while maintaining their relative relationship to each other. In a nutshell, Adam is re-ordering and re-encoding the original data received prior to scrambling.

Applicant is aware of such re-ordering of originally received data prior to scrambling and discusses such in the Description of Related Art in the present specification at the bottom of page 3, starting at line 22. The originally filed specification states:

> "In addition to inserting frame-boundary data, [prior art] line encoders typically perform other functions. For example, the data can be re-encoded to ensure that there are plenty of transitions to improve its bit-timing recovery. Also, the data can be re-encoded to avoid an imbalance in the number of ones and zeros being transmitted so that an electrical transmission is not afflicted by an unwanted DC component. Some line encoders limit the codes employed to those with the desired characteristics. Others use pseudo-random scrambling to achieve the same purpose."

As such, Applicant points out that Adam's Control Character Encoding and Byte Reordering Encoder 24 modifies the inbound serial stream prior to the scrambler and therefore, the scrambler 206 of Adam is not receiving "original" data.

Claim 1 recites a "scrambler for converting original received data into scrambled data." Applicant respectfully submits that Adam, like Kimmitt (U.S. Patent No. 6,738,935), discussed in the previously filed Amendment, does not teach or anticipate a "scrambler for converting original received data into scrambled data." Furthermore, it is questionable whether a forward error correction "FEC" encoder anticipates the ECC encoder "for converting said scrambled data into ECC-encoded data" recited in claim 1 because an FEC encoder is a specific, limited type of error correction technique. Applicant respectfully submits that for these reasons Adam does not teach or anticipate claim 1 and respectfully requests that the § 102 rejection be withdrawn.

Claim 2 is dependent upon claim 1 and is therefore not anticipated for at least the same reasons as discussed above with respect to claim 1. Applicant respectfully requests that this § 102 rejection be withdrawn and submits that claim 2 is ready for allowance.

Claim 5 is dependent upon claim 1 and is therefore not anticipated for at least the same reasons as discussed above with respect to claim 1. Furthermore, claim 5 recites that "said ECC encoder applies an error correction code in converting said scrambled data into ECC-encoded data." Applicant respectfully submits that the forward error correction (FEC) of Adam does not teach or anticipate the application of an error correction code in converting the scrambled data into ECC-encoded data as recited. In fact, Applicant respectfully submits that Adam is quiet on the subject. Applicant respectfully requests that the § 102 rejection be withdrawn and submits that claim 5 is ready for allowance.

Independent claim 6 recites a serial communication method that includes a step of "converting original received data into scrambled data." As discussed above, Adam does not teach or anticipate converting original received data into scrambled data. In fact, Adam

teaches away from converting original data by requiring an encoding of the received data prior to scrambling the data. (See Adam, col. 3, lines 29-50.) As such, Applicant respectfully submits that claim 6 is not anticipated by Adam and respectfully requests that the § 102 rejection be withdrawn.

Claims 7 and 8 are either directly or indirectly dependent upon claim 6 and are therefore not anticipated for at least the same reasons as discussed above with respect to claim 6. Applicant respectfully requests that the § 102 rejection be withdrawn and submits that claims 7 and 8 are ready for allowance.

Claim 34 recites a serial communication system. A scrambler converts "received data into scrambled data" and the received data is "without redundant bits inserted by said serial communication system or being re-encoded by said serial communication system." As such, Applicant points out that Adam requires a re-encoding of the input data prior to being scrambled. As such, Applicant points out that Adam cannot teach or anticipate claim 34. Applicant respectfully requests that the § 102 rejection be withdrawn and submits that claim 34 is ready for allowance.

Regarding § 103 Rejection

Claims 3, 4, 9 and 10 were rejected under 35 USC § 103(a) as being rendered obvious by Adam in view of Kimmitt et al. (U.S. Patent No. 6,738,935, hereinafter referred to as Kimmitt). Applicant respectfully traverses this rejection.

As discussed above herein and in the previously filed Amendment, dated September 7, 2004, Kimmitt does not overcome the inadequacies of Adam because the Kimmitt device receives data, then first performs ECC coding on the data by adding redundant bits to the

received data, then scrambles the data. There is nothing in Kimmitt that teaches or anticipates a "scrambler for converting original received data into scrambled data."

As such, claims 3, 4, 9 and 10 are not rendered obvious by Adam in view of Kimmitt because the recited art does not teach, allude to or render obvious receiving original data for scrambling. Even if the cited art was combined, the combination does not teach, allude to, or render obvious receiving an original data for scrambling. Furthermore, neither Adam nor Kimmitt provide a reason or motivation to combine the references and achieve receiving an original signal for scrambling. As such, applicant respectfully requests that this § 103 rejection be withdrawn and submits that claims 3, 4, 9 and 10 are ready for allowance.

Accordingly, it is believed that entry of this Amendment is warranted under the provisions of 37 CFR § 1.116 as it clearly reduces the issues that might be present upon the filing of an appeal. However, Applicant respectfully submits that entry of this amendment is more importantly warranted in that it clearly shows that these claims are patentably distinguishable over all art of record and that this application should be reconsidered and all claims be indicated as allowable. Applicant therefore respectfully requests entry of this amendment, reconsideration of this application and earnestly solicits an early Notice of Allowance.

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Respectfully submitted,

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